(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization

International Bureau



(43) International Publication Date 25 March 2004 (25.03.2004)

PCT

(10) International Publication Number WO 2004/024689 A1

(51) International Patent Classification⁷:

C07D 211/90

(21) International Application Number:

PCT/KR2003/001849

(22) International Filing Date:

8 September 2003 (08.09.2003)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

10-2002-0054808

11 September 2002 (11.09.2002) KR

(71) Applicant (for all designated States except US): HANLIM PHARMACEUTICAL CO., LTD. [KR/KR]; 1656-10 Seocho-dong. Seocho-gu, Seoul 137-071 (KR).

(72) Inventors; and

(75) Inventors/Applicants (for US only): CHUNG, You-Sup [KR/KR]; 101-802 Neulpureun Byuksan Apt., 488, Manpo-dong, Paldal-gu, Suwon-city, Kyungki-do 442-400 (KR). HA, Mun-Choun [KR/KR]: 105-1707 Injeong Melody Apt., Dunjeon-ri. Pogok-myun. Yongin-city, Kyungki-do 449-812 (KR).

(74) Agent: KIM, Eui-Bak; The Cheonghwa Bldg., 1571-18 Seocho-dong, Seocho-gu, Seoul 137-874 (KR).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

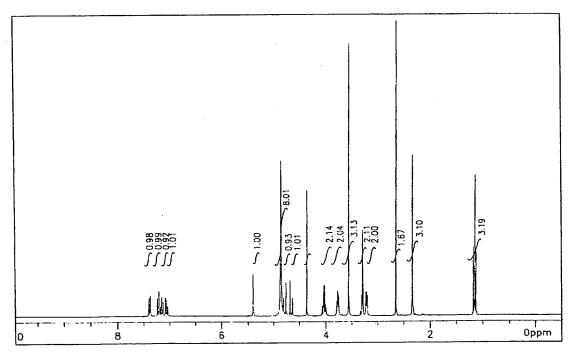
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS. MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: PROCESSES FOR THE PREPARATION OF S-(-)-AMLODIPINE



(57) Abstract: The present invention provides a process for the preparation of S-(-)-amlodipine from (R.S)-amlodipine in industrial-scale using L-(+)-tartaric acid, which is much cheaper than D-(-)-tartaric acid.